

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS

4 UNITED STATES OF AMERICA, )  
5 Plaintiff, ) Criminal Action  
6 v. ) No. 13-10200-GAO  
7 DZHOKHAR A. TSARNAEV, also )  
8 known as Jahar Tsarni, )  
9 Defendant. )

BEFORE THE HONORABLE GEORGE A. O'TOOLE, JR.  
UNITED STATES DISTRICT JUDGE

**EXCERPT OF DAY FORTY-ONE OF JURY TRIAL**

**TESTIMONY OF GERALD R. GRANT, JR.**

John J. Moakley United States Courthouse  
Courtroom No. 9  
One Courthouse Way  
Boston, Massachusetts 02210  
Monday, March 30, 2015  
2:05 p.m.

Cheryl Dahlstrom, RMR, CRR  
Official Court Reporter  
John J. Moakley U.S. Courthouse  
One Courthouse Way, Room 3510  
Boston, Massachusetts 02210  
(617) 737-8728

## 1 APPEARANCES:

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1 (The Court and jury entered the courtroom at 2:05 p.m.)

2 THE COURT: Mr. Watkins.

3 MR. WATKINS: The defense calls Jerry Grant.

4 THE CLERK: Sir, you want to step up here, please?

5 Step up to the box, if you would. Remain standing. Raise your  
6 right hand.

7 GERALD R. GRANT, JR., Sworn

8 THE CLERK: Have a seat. State your name. Spell your  
9 last name for the record. Keep your voice up and speak into  
02:08 10 the mic.

11 THE WITNESS: My full legal name is Gerald R. Grant,  
12 Jr. Would you like me to spell it? G-e-r-a-l-d, R.,  
13 G-r-a-n-t, Jr.

14 DIRECT EXAMINATION BY MR. WATKINS:

15 Q. Good afternoon, Mr. Grant.

16 A. Good afternoon, sir.

17 Q. How are you currently employed?

18 A. I am a computer forensics investigator for the Federal  
19 Public Defender in the Western District of New York as well as  
02:08 20 do independent consulting in computer forensics on my own.

21 Q. How long have you been working at the Federal Public  
22 Defender Office in New York?

23 A. This is my 21st year, sir.

24 Q. What office do you work at?

25 A. Western District of New York, which has an office in

1 Rochester, New York, which is the main office, and then  
2 Buffalo, New York, which is the branch.

3 Q. And what is it that you do for the Federal Public Defender  
4 Office in the Western District of New York?

5 A. I am currently a computer forensics investigator.

6 Q. How long have you been doing that position?

7 A. In that specific title, I have been doing that for five  
8 years.

9 Q. Before that, what did you do for the Federal Public  
02:09 10 Defender Office?

11 A. I was -- started out as what's called a computer systems  
12 administrator, so I handled all of the IT for both of the  
13 offices. I then moved into a national position and then became  
14 the investigator.

15 Q. Now, you talked that in addition to working at the Federal  
16 Public Defender Office you also consult in a private capacity?

17 A. Yes, sir.

18 Q. Again, what kind of capacity is that? What kind of work  
19 do you do privately?

02:09 20 A. That is also computer forensics as well.

21 Q. How long have you been doing that for?

22 A. Actually, that's -- my business has been around since  
23 1990, so well over 30 years on that. And I've been doing  
24 forensics for a number of years, even prior to that.

25 Q. Let's talk about your education and experience. Did you

1 go to school after high school?

2 A. I did, yes, sir.

3 Q. Do you have a degree?

4 A. An Associate's in computer programming.

5 Q. After receiving your Associate's degree, where did you  
6 begin working?

7 A. I was with a family business after that but then became an  
8 employee with CompuAdd. Then I started my own consulting  
9 business and then was actually hired by the Federal Defender's  
02:10 10 Office in Rochester, which is how I became an employee of  
11 theirs.

12 Q. When did you first start working for the Federal Public  
13 Defender in Rochester?

14 A. As a consultant in 1992 when they first opened and 1994 as  
15 an employee.

16 Q. What exactly is a computer forensics investigator?

17 A. As a computer forensics investigator, I deal with any type  
18 of electronic equipment, whether it's analyzing, extracting  
19 data, performing the forensics, preparing for trial, working  
02:10 20 with the attorneys.

21 Q. And these are largely digital devices that you work with?

22 A. Everything digital, yes, sir.

23 Q. Does some of the work you do require particular tools to  
24 be done?

25 A. There's a number of different forensics tools on the

1 market. Currently, AccessData FTK is one of the leading ones.  
2 Guidance Software, EnCase; CelleBrite; UFED, which stands for  
3 Universal Forensics Extraction Device. Then there's a number  
4 of other smaller utilities that are utilized on a regular  
5 basis.

6 Q. Are you proficient in using all those tools?

7 A. Yes. I have been trained in them, and I'm certified in  
8 the AccessData FTK as an AccessData certified examiner as well  
9 as the CelleBrite Mobile Forensics as a CelleBrite certified  
02:11 10 logical operator.

11 Q. Now, those certifications, do those require any kind of  
12 ongoing efforts?

13 A. Yes. There's always going to be continual training as  
14 well as I need to be recertified every two years to make sure  
15 that I am well-versed on the new operating systems, new  
16 techniques, anything that comes out within the next few years.

17 Q. In addition to actually analyzing computers and telephones  
18 and other digital devices, do you also have experience with  
19 cell tower data and cell site locations?

02:12 20 A. Yes. I've been working with cell site analysis or  
21 plotting of the cell tower locations with activity for over ten  
22 years. I started with the Federal Defenders with that, working  
23 on a number of cases, working with all of the major cell phone  
24 vendors: AT&T, Verizon, Sprint, T-Mobile. Worked directly  
25 with them. Also worked with a number of cell phone forensics

1 companies to bring those all together. I have been trained on  
2 that. I've actually even developed my own training program for  
3 the whole Federal Defender organization as well. And I lecture  
4 across the country on that.

5 Q. In addition to cell tower data and cell site location, do  
6 you have experience in analyzing social media platforms?

7 A. Yes. Most of the major ones: Facebook, Twitter, YouTube,  
8 Instagram, all of those.

9 Q. You touched on this before. But in addition to your  
02:13 10 duties with the Federal Defender Office and the private  
11 consulting, do you also do training and lectures?

12 A. All the time. I believe I'm currently over about 90  
13 lectures that I do across the country, a number of them that I  
14 do on a yearly basis, to come back and train on all of the  
15 technology, including computer forensics, cell phone forensics  
16 and cell site analysis.

17 Q. During your career as a computer forensics investigator,  
18 approximately how many cases have you consulted in?

19 A. I've been consulting actually prior to becoming a computer  
02:13 20 forensics investigator because, as I was a CSA, I was also  
21 involved heavily in the cases. I would say well over 400 cases  
22 with the Federal Defender's Office and well over 2 to 300  
23 privately.

24 Q. Do you currently have cases that you're consulting on both  
25 with the Federal Defender Office and through your private --

1 A. Yes, absolutely. I'm currently over a hundred active  
2 cases right now with my private consulting, and I'm about 75 to  
3 80, I believe, in the Federal Defender Office.

4 Q. With your private consulting, is that just criminal cases  
5 or criminal and civil?

6 A. I do both criminal and civil on the private side.

7 Q. How many times have you testified at trial?

8 A. Sixteen times in court testifying as an expert.

9 Q. On some of those occasions, has it been about cell site  
02:14 10 analysis and cell site location?

11 A. Yes, it has.

12 Q. And have you also consulted in preparation for trial about  
13 social media platforms?

14 A. Yes, I have, sir.

15 Q. Now, were you contacted by our office to review documents,  
16 records, and data extracted in regard to the *United States v.*  
17 *Tsarnaev*?

18 A. I was.

19 Q. More recently, were you asked to look at various  
02:15 20 documents, records, and data that were extracted from digital  
21 devices for dates connected to this case?

22 A. I was, yes, sir.

23 Q. I'm going to direct your attention first to April 16,  
24 2012, which is the date of the running of the 2012 Marathon.  
25 I'm going to show you first what's already in evidence as

1       Exhibit 3000. I'm just going to show you the first page and  
2 ask you if you recognize it.

3                    MR. WATKINS: Hold on for one moment.

4       Q.    Do you recognize this -- what I've put before you?

5       A.    Yes. This is a Twitter account that I looked at, sir.

6                    MR. WATKINS: Your Honor, this has been admitted, so  
7 it should be going to the jury.

8                    THE COURT: Okay.

9       Q.    Whose Twitter account is this?

02:16 10      A.    It's one that's considered J\_tsar, J, underscore, t-s-a-r.

11      Q.    In your review of documents and other evidence in this  
12 case, do you understand that to be connected to Jahar Tsarnaev?

13      A.    I do.

14      Q.    Have you looked through the entirety of this document?

15      A.    Not the entirety, but I did look at specific messages, and  
16 I did connect to the actual live account.

17      Q.    I'm showing you Page 88 of that document, and I'm  
18 highlighting a series of tweets. Have you looked at those  
19 tweets on this document in the past?

02:17 20      A.    I have, sir.

21      Q.    On this document, the most recent tweets are at the top,  
22 and the oldest tweets are at the bottom, correct, as a general  
23 matter?

24      A.    That is correct, sir.

25      Q.    But none of these tweets has a particular date attached to

1 it, is that correct?

2 A. They have a date, sir, but --

3 Q. I'm sorry. They do not have a specific time on the date  
4 that they are attached to, right?

5 A. That is correct, yes, sir.

6 Q. Is that consistent with your experience with Twitter?

7 A. Correct. When you're looking at a Twitter wall, it just  
8 shows the dates.

9 Q. Now, did you make efforts to determine the actual time  
02:18 10 that each of those posts was made?

11 A. I did, sir.

12 Q. How were you able to do that?

13 A. There's two ways when you're on an actual live Twitter  
14 account. You can either hover your cursor from your mouse over  
15 the date, and it will display the actual time; or if you click  
16 on the message itself and it expands it, it will show the time  
17 in the bottom left.

18 Q. Was there -- is there an additional way using data to  
19 determine -- strike that.

02:18 20 Was there at least one tweet in this expanded series  
21 here that you were not able to get through the live feed?

22 A. Correct, there was one, sir.

23 Q. Is there another way to get that if it no longer exists on  
24 the live feed?

25 A. If it doesn't exist and there was some type of return from

1 Twitter through a subpoena or a warrant, then that information  
2 could contain the actual message and the metadata, meaning the  
3 date and time that it was posted.

4 Q. And did you do that for one of the tweets that we'll talk  
5 about in a moment?

6 A. I did, yes, sir.

7 Q. But the rest of them, you got them off of a live feed?

8 A. Yes. I was able to open each one, yes, sir.

9 MR. WATKINS: Your Honor, this should only go to the  
-0 witness.

11 Q. I'm going to show you that series of tweets now with the  
12 timestamp on them. I'm going to ask you if you recognize them,  
13 and then we'll seek to admit them.

14 So I'm showing you first Exhibit 3126A. Do you  
15 recognize that as one of the tweets that you determined a time  
16 for?

17 A. I did, sir.

18 Q. Once you determined the time, did you also pull it out --  
19 or was it also pulled out in this form for presentation to the  
02:20 20 jury?

21 A. Yes, it was.

22 Q. And did you verify the timing on this?

23 A. I did, sir, yes.

24 Q. We'll talk a little more about the timing in a minute.

25 But for each one of these you verified in a couple of different

1 ways the actual time that it was posted?

2 A. I did, sir.

3 MR. WATKINS: Your Honor, I'd move to admit Exhibit  
4 3126A.

5 (Defendant's Exhibit No. 3126A received into evidence.)

6 MR. CHAKRAVARTY: No objection to time-verifying all  
7 of these, your Honor.

8 THE COURT: Okay.

9 Q. Showing you 3126B, was that the same? Were you able to  
02:20 10 verify the time and then verify that this is the substance and  
11 the time from the Twitter feed?

12 A. Yes.

13 THE COURT: How many of these are there, Mr. Watkins?

14 MR. WATKINS: I'm sorry?

15 THE COURT: How many of these are there?

16 MR. WATKINS: There are seven.

17 THE COURT: I understand there's no objection to any  
18 of them. Can we just admit them all, shortcut things a little?

19 MR. CHAKRAVARTY: That will be fine, your Honor.

02:21 20 THE COURT: I don't know whether that applies to the  
21 one that was distinguished by a different way of determining.

22 MR. CHAKRAVARTY: I think we would want to hear  
23 testimony about that one.

24 THE COURT: So those that are this method can all be  
25 admitted, whatever the numbers are.

1 Q. I'm turning you now to 3126H.

2 MR. WATKINS: Just for the witness.

3 THE COURT: So this is the exception?

4 MR. WATKINS: This is the exception.

5 THE COURT: Okay. We'll get that done.

6 Q. Mr. Grant, this particular tweet has no timestamp of its  
7 own in the lower left corner, is that accurate?

8 A. That is correct.

9 Q. You have put in a header on this particular tweet a  
02:22 10 specific time that it was posted in Eastern Daylight Time?

11 A. I did, sir.

12 Q. How were you able to determine when this particular post  
13 was posted?

14 A. Even though I was unable to find the live posting on the  
15 Twitter to be able to open it, I associated this specific tweet  
16 with a return, a piece of discovery, that was turned over to us  
17 from the government that was either a return from Twitter. It  
18 contained all of the individual logged items that were posted  
19 on the Twitter account.

02:22 20 So what I did is I matched up the exact wording and  
21 phrasing to the actual Twitter log record, and then I was able  
22 to look at the date and time that it was posted on this  
23 particular tweet in that log. It was in what's considered UTC,  
24 or Greenwich Mean Time, if you've aware of that. And then I  
25 was able to bring that back to the time zone, the Eastern

1       District time zone, along with the Daylight Savings at the  
2 time.

3       Q.     And that background data, that underlying data, does it  
4 include more than just the time that it was posted? Does it  
5 include other information about the post?

6       A.     Yes. It includes the Twitter number, other information,  
7 if it's been forwarded or if it's been retweeted.

8       Q.     Does it also include whether it was posted by web or by a  
9 mobile device?

02:23 10      A.     Yes, it does.

11      Q.     To finish up, so this time that you put here you derived  
12 from the method that you just went -- took us through?

13      A.     Yes, I did, sir.

14            MR. WATKINS: So with that, your Honor, I'd move for  
15 admission of 3126H, along with 3126A through F.

16            MR. CHAKRAVARTY: No objection, your Honor.

17            THE COURT: Okay.

18            (Defendant's Exhibit Nos. 3126A-3126F and 3126H received into  
19 evidence.)

02:24 20            MR. WATKINS: So now if we may have it for the jury.

21      Q.     I'm going to put a couple of things up here. I want to  
22 show you what's been previously admitted as Government's  
23 Exhibit 1280. And I'm also going to, next to it, put 3126B,  
24 which is one of the tweets that you just talked about.

25      A.     Okay.

1 Q. Now, do the substance of these two tweets -- are they  
2 identical?

3 A. Yes, they are, sir.

4 Q. Is this time in the lower left-hand corner also identical?

5 A. Yes, it is.

6 Q. But these times, first on the government's and on the one  
7 you created, are different. Can you tell me why that is?

8 A. Well, there's two things. The 3:42 a.m. that the  
9 government put up is an accurate time based on Pacific time.  
02:25 10 What I did notice though is the showing that it was Pacific  
11 Standard Time, that was incorrect only because, at the time of  
12 April 16, 2012, the Pacific Coast as well as the East Coast,  
13 would be in what's called the Daylight Savings Time. So that  
14 would have actually offset it an hour. So the 3:42 is correct,  
15 but it's not Pacific Standard Time. It's actually Pacific  
16 Daylight Savings Time. Other than that, just for  
17 clarification.

18 What I did then is took that time and offset it from  
19 the UTC time showing the accurate Eastern Daylight Savings Time  
02:26 20 at that -- meaning that it's 6:42 a.m. so specifically three  
21 hours ahead of the Pacific time.

22 Q. So if someone were posting tweets from the East Coast, why  
23 is it that it would show 3:42 in the bottom corner here?

24 A. The 3:42 isn't necessarily from the poster. It's going to  
25 be associated with the setting of the actual Twitter account.

1 You can set your Twitter account up as either being in Pacific,  
2 Central, Mountain, Eastern time. The actual time is stored at  
3 Twitter in UTC time. So it doesn't put an actual local time in  
4 there. It does the UTC. And then whoever is viewing these  
5 specific tweets, it would display in the time zone that that  
6 person is actually viewing the tweets. So somebody in the  
7 Eastern District looking at the same tweet would see 6:42, but  
8 somebody in Pacific would look and see 3:42.

9 Q. Now, just as the 3:42 Pacific time, did you take -- did  
02:27 10 you make efforts to verify that that truly was the date that it  
11 was -- the time that it was posted on that day?

12 A. I did verify. What I did on the live actual tweet is I  
13 opened each one of them while my computer was set to Pacific  
14 Daylight -- or the Pacific time zone, and it then matched up to  
15 all of the 3:42's and the three hours that were behind.

16 I then reset my computer so that my Twitter account  
17 would reflect the Eastern Daylight Savings Time. And those  
18 then automatically adjusted the times on the tweets to 6:42  
19 a.m. For purposes of demonstration here, we left them at the  
02:28 20 Pacific time, and I did the adjustment at the top.

21 Q. Now, with all that, I want to go through those seven  
22 tweets that were made from April 15 to April 17. Showing you  
23 3126A, what time in Eastern Daylight Time, was -- date and time  
24 was this posted?

25 A. This tweet was posted on April 15, 2012, at 4:58 p.m.

1 Q. What is the substance of that tweet?

2 A. It says, "bout to sleep for like 20 hours."

3 Q. Going to 3126B, what is the date that this is posted?

4 A. Again, this is on April 16, so the next day, 2012, at 6:42  
5 a.m.

6 Q. So on April 16, 2012, the date of the running of the 2012  
7 Boston Marathon?

8 A. Yes, sir.

9 Q. And this is the tweet we've seen as Government Exhibit  
02:29 10 1280. This is 3126B with the Eastern Daylight Time stamp on  
11 it, correct?

12 A. Yes, sir.

13 Q. Again, what time was this posted, Eastern Daylight Time?

14 A. It was posted at 6:42 a.m., Eastern Daylight Time.

15 Q. Putting before us 3126C, what time was this posted?

16 A. This was also posted on April 16, 2012, at 8:38 a.m.,  
17 Eastern Daylight Time.

18 Q. That's roughly two hours after the last tweet?

19 A. Yes, sir.

02:30 20 Q. What is the substance of this tweet?

21 A. It states, "hmmmm, get breakfast or go back to sleep, this  
22 is always a tough one."

23 Q. Showing you 3126D, what is the Eastern Daylight Time  
24 timing on this tweet?

25 A. This is, again, on April 16, 2012, at 8:45 a.m., Eastern

1 Daylight Time.

2 Q. The last tweet we saw said, "get breakfast or go back to  
3 sleep." What does this tweet say?

4 A. This says, "Sleep after breakfast is so much sweeter."

5 Q. Showing you 3126E, what is the time on that?

6 A. That is also April 16, 2012, at 8:45 a.m., Eastern  
7 Daylight Time.

8 Q. So that was within a minute of the last one, right?

9 A. Correct. It would have been within the same minute.

02:31 10 Q. The last one said, "sleep after breakfast is so much  
11 sweeter." What is the substance of this tweet?

12 A. This states, "So breakfast it is."

13 Q. I'm going to move away from the Twitter post for just a  
14 minute and put before you --

15 MR. WATKINS: This should only go to the witness, your  
16 Honor.

17 Q. -- what I've marked as 3125. And I'm going to scroll  
18 through some pages here. Do you recognize what this document  
19 is?

02:31 20 A. I do, sir.

21 Q. What is it?

22 A. It's a log record indicating the card access for admitting  
23 into buildings at the University of Massachusetts.

24 Q. Is there a specific building that this is in regard to?

25 A. Yeah. It's the Maple Ridge Hall.

1 Q. Turning to Page 8 of this document, I'm going to highlight  
2 an entry. Is that an entry that you looked at from April 16 of  
3 2012?

4 A. It is, sir.

5 MR. WATKINS: Your Honor, I'd move to admit so much of  
6 Exhibit 3125 as includes the page that we're seeing regarding a  
7 swipe at April 16th.

8 MR. CHAKRAVARTY: No objection.

9 THE COURT: With the certification or not?

02:32 10 MR. WATKINS: I'm sorry?

11 THE COURT: With the first page certificate or not?

12 MR. WATKINS: The first page was a certificate.

13 THE COURT: Right. I'm just asking you if you want  
14 that part of the record or not.

15 MR. WATKINS: I don't believe we need that as part of  
16 the record.

17 MR. CHAKRAVARTY: I think, as a pattern, we haven't  
18 been introducing the certs, your Honor.

19 THE COURT: Fine. Okay. What's the page number?

02:33 20 MR. WATKINS: This is Page 8 of Exhibit 3125, and it  
21 will be the only page when it goes to the jury.

22 (Defendant's Exhibit No. 3125 received into evidence.)

23 MR. WATKINS: May we publish that to the jury? Before  
24 we go to that, I'm going to back up to the last tweet to remind  
25 us where we were here.

1 Q. "So breakfast it is" at 8:45, Eastern Daylight Time, that  
2 was the last tweet that we saw?

3 A. Correct, sir.

4 Q. So, now, turning to Exhibit 3125 -- wrong one -- 3125,  
5 what is this entry here?

6 A. This is a log entry from the University of Massachusetts  
7 system that shows that somebody used a card to access the Maple  
8 Ridge Hall.

9 Q. What time did that occur?

02:34 10 A. At 10:56 a.m.

11 Q. Nearly 11:00, Eastern Daylight Time?

12 A. Correct, sir.

13 Q. Now, of course, we know that swipes in and swipes --  
14 swipes in are recorded; swipes out are not?

15 A. Not on this document, no, sir.

16 Q. I'm going to go next to 3126H. And what time was this  
17 tweet posted?

18 A. With my translation, it was 12:46 p.m., Eastern Daylight  
19 Time, on April 16th.

02:35 20 Q. What time do you understand runners are generally  
21 finishing the Marathon?

22 MR. CHAKRAVARTY: Objection, your Honor.

23 THE COURT: Overruled. You may answer it.

24 Q. If you know, generally what time are people getting to the  
25 finish line of the Marathon?

1       A.    Typically, the Marathon starts off in sections with the  
2       females and the male sections in different stagings. But,  
3       typically, a little over two hours people will start rolling  
4       through. So if the men starts around 10:00 and then there's  
5       three stages, you'll see them 1:00, you know, 1:30, 2:00,  
6       somewhere in the early afternoon as well.

7       Q.    So looking here at this tweet, this is at 12:46 p.m.?

8       A.    Yes, it is, sir.

9       Q.    And through that data that you obtained, the backup data  
02:35 10      here, could you determine whether this was posted by a mobile  
11     device or through the web?

12      A.    It was posted through the web.

13      Q.    And what is the significance of the difference between a  
14     mobile device and a web to post tweets?

15      A.    It indicates that it was posted from a computer that was  
16     on an actual web browser versus the app that was on an iPhone  
17     or an Android.

18      Q.    So, now, with all that, can you read the substance of that  
19     tweet from April 16th at 12:46 p.m.?

02:36 20      A.    Yes, sir. It has the "@" symbol and then the name Enzo,  
21     E-n-z-o, underscore, U. And it says, "That's what's up glad to  
22     hear that, I'm all right and yea, summers gonna be amazing."

23      Q.    Is there any mention about the Boston Marathon in that  
24     tweet?

25      A.    No, sir.

1 Q. Showing you 3126F, this is the next day?

2 A. Correct, sir.

3 Q. And at what time is this post?

4 A. It translated to 3:15 a.m., Eastern Daylight Time.

5 Q. What is the substance of this post?

6 A. It states, "This was a great weekend."

7 Q. And in that Twitter post, there's no mention of the Boston  
8 Marathon?

9 A. No, sir.

02:37 10 Q. No retweets of the Boston Marathon?

11 A. No, sir.

12 Q. I'm going to fast-forward to a couple of dates in 2013.  
13 But first I want to do a little refresher about cell phones and  
14 cell data and cell towers. I'm going to put on the screen  
15 what's been admitted as Exhibits 1167-01 and 3002. So I'm  
16 going to put these side by side.

17 First I'm going to go to 1167-01. Do you recognize  
18 what this is?

19 A. Yes, I do, sir.

02:38 20 Q. What is it?

21 A. It's the subscriber billing page for an AT&T call detail  
22 record.

23 Q. I'm going to highlight the top portion of this. Does it  
24 indicate who the financially liable party -- the billing party  
25 is?

1 A. It does. It has the name Dzhokhar Tsarnaev.

2 Q. Does it also mention how long he's been a customer?

3 A. Yes, since December 1, 2012.

4 Q. Does it indicate a phone number for both home and contact?

5 A. It does have a home and work. They're both the same. The  
6 number is 857-247-5112.

7 Q. Is that number consistent with the call detail records  
8 that are in Exhibit 3002?

9 A. It is, sir.

02:39 10 Q. I'm going to go to 3002 now. And is this the first page  
11 of the AT&T call detail records for Dzhokhar Tsarnaev's cell  
12 phone, with the last four digits 5112?

13 A. It is, sir.

14 Q. How long is this set of records when printed out in paper  
15 form?

16 A. The particular set was 515 pages.

17 Q. I want to focus on the last column here. And do you  
18 recognize that?

19 A. I do, sir.

02:40 20 Q. What is that that's detailed in the last column?

21 A. The last column is part of the individual records that  
22 shows the cell tower location that was utilized with that  
23 particular piece of activity. It starts out -- the first two  
24 numbers indicate basically the cell tower itself or the  
25 location that they've designated and then a specific antenna

1 afterwards. Then it follows by two sets of coordinates, the  
2 first being the longitude for mapping and then the second being  
3 the latitude. They're a little bit backwards. Usually it's  
4 latitude/longitude. Finally, the last number would be what's  
5 called the azimuth, or the angle, that the sector of the  
6 antenna was pointed to.

7 Q. Now, with that information -- does this column run through  
8 the entire set of records?

9 A. It does, sir.

02:41 10 Q. Are there some records where there is no cell tower  
11 information?

12 A. Yes, correct.

13 Q. And how would that happen?

14 A. It could be the phone didn't register. It could have been  
15 a bad signal at the time. It could have been the phone was  
16 off. There's a number of different things that would make it  
17 not happen.

18 Q. For the vast majority of the data in these call detail  
19 records, are there, in fact, latitude and  
02:41 20 longitude coordinates?

21 A. Yes, there are, sir.

22 Q. Using those latitude and longitude coordinates, are you  
23 able to, through this activity log, determine particular cell  
24 tower sites associated with the data?

25 A. Yes. Basically, because you have the latitude and

1       longitude, you're able to plot the location of where the tower  
2 and/or the antennas are physically located. From there, you  
3 can take those two coordinates and put them into a mapping  
4 program to show the exact location.

5       Q.     Now, you say "the exact location." That's not the exact  
6 location of the phone, is it?

7       A.     No. It's the location of the physical antenna which could  
8 reach out away from the antenna.

9       Q.     As a very general matter -- and I understand all cell  
02:42 10 towers are different. As a general matter, what is the range  
11 of a cell tower?

12      A.     The range can vary. It depends on the geographical area  
13 and how many other cell towers are nearby. In all of my  
14 experience, with hundreds of these things, I've seen them  
15 anywhere from a half a mile to four miles out.

16      Q.     Is it possible they could be 50 or 100 or 150 miles away?

17      A.     Physically, the capability of a GSM or an antenna really  
18 can't go beyond 26 miles, is what they've considered typical  
19 range with interference. It's normally not in an environment  
02:43 20 or a live environment because if an antenna reached out that  
21 far and crossed over other antennas, you would start dropping  
22 calls. It would be the equivalent of, if you had a radio  
23 station and you were between two cities and you heard the same  
24 radio station on that radio, the two different radio stations,  
25 you would hear two people talking and it would interfere. With

1 a cell phone, if that happened, it would physically drop the  
2 call because there would be too much interference.

3 Q. Before we move away from Exhibit 3002, when does the call  
4 detail records start?

5 A. As far as the date?

6 Q. The date that they began.

7 A. The first date in this report is December 11, 2012.

8 Q. And we've seen that there's an indication that this person  
9 had been a customer since December 1 of 2012, right?

02:44 10 A. That is correct, yes, sir.

11 Q. So we were talking a minute ago about April of 2012.

12 Would these records have been any help to determine the  
13 geolocation of somebody in 2012?

14 A. No, sir. They would not go back that far.

15 Q. Going back to the latitude and longitude, once you've  
16 identified the particular cell towers that are involved, are  
17 you able to plot that onto a map?

18 A. Yes, I was.

19 Q. How does one go about doing that?

02:44 20 A. Most of the normal mapping programs -- Google has one;  
21 there's Google Earth. There's the Google online. Microsoft  
22 has different types. They have maps and streets or streets and  
23 roads; also, Delorme. There's a number of different ones out  
24 there. As long as the mapping program itself will accept you  
25 entering the latitude and longitude in that order, it will plot

1 that coordinate on the map.

2 For my work, I normally use Google Earth, which is a  
3 free program that you can download, and it will allow you to  
4 plot individual items and then use that as location  
5 information.

6 Q. Indeed, have you done that kind of plotting to a map  
7 before in cases?

8 A. Almost every case that I do is through that, yes, sir.

9 Q. Once you've plotted those cell towers, are you able to  
02:45 10 create an actual map that can be printed and used?

11 A. Yes, sir.

12 Q. In addition to putting on cell site locations, can you  
13 also put on points of interest on these maps?

14 A. Oh, absolutely. You can key in addresses, or you can  
15 actually zoom down to an area and put a marker if you know  
16 exactly where that specific point is.

17 Q. Now, for this case, did you locate particular times and  
18 dates for cell phone activity and plot them to maps?

19 A. I did.

02:46 20 Q. I want to turn first to January 31, 2013. The screen you  
21 see, Exhibit 11 --

22 MR. WATKINS: This has already been admitted, your  
23 Honor.

24 THE COURT: It has, all right.

25 Q. Showing you Exhibit 1159, which documents the purchase of

1 two pressure cookers at the Macy's Square One Mall in Saugus,  
2 Massachusetts, have you looked at this document before?

3 A. I have, sir, yes.

4 Q. Let me see if I can get a -- does it indicate a specific  
5 time that the transaction occurred?

6 A. Yes. The time is in military. 20:38 would indicate that  
7 it's 8:38 p.m.

8 Q. On the other side of the screen, I want to show you  
9 Government's Exhibit 1152-06. Do you recognize, as a general  
02:47 10 matter, what this is?

11 A. I do, sir.

12 Q. What is it?

13 A. This is a physical plotting of what's called GPS track  
14 points that were pulled from a GPS device. Those individual  
15 points, as the GPS is running, keeps track of its location plus  
16 the date and the time. And those are able to be imported into  
17 a mapping program to show the actual path of travel.

18 Q. And you did not prepare this map, correct?

19 A. No, I did not.

02:48 20 Q. Did you actually go into the GPS to verify each point on  
21 this map that was plotted?

22 A. I did not, sir, no.

23 Q. But taking a look at the exhibit, what does it indicate in  
24 regard to the plots that the government did here?

25 A. It indicates that the actual GPS device itself stopped at

1 8:13 p.m. near a particular address. In this case it was 1201  
2 Broadway, which relates to the Square One Mall in Saugus. It  
3 also indicates that the travel then resumed at 8:42 p.m. So it  
4 knows when it stopped and then when it started back up again.

5 Q. Is that consistent with what we saw over here, the  
6 purchase?

7 A. Yes, sir. If you look, it's -- 8:38 was that purchase.  
8 So that would have been when the transaction was completed.  
9 And then, within four minutes, you see the device moving again.

02:49 10 Q. So this GPS that was ultimately recovered from a Mercedes  
11 tracks this purchase?

12 A. It appears to be.

13 Q. Correlates to that purchase?

14 A. It correlates, yes, sir.

15 Q. Now, using those times, the 8:38 p.m., were you able to go  
16 through Exhibit 3002, the call detail records, to find cell  
17 phone activity around those times?

18 A. Yes, sir, I did.

19 Q. And did you find cell phone usage on January 31st in the  
02:50 20 evening?

21 A. I did, sir.

22 Q. Once you found data on -- from the call detail records,  
23 were you able to locate the cell towers that they were  
24 associated with?

25 A. Yes, sir. I utilized that same latitude and longitude GPS

1 information that was associated with the activity and plotted  
2 that location on Google Earth.

3 Q. So this, again, is on January 31 of 2013 at the same time  
4 the Square One Mall purchase was being made?

5 A. It was around that time, yes, sir, not exact time.

6 MR. WATKINS: This should just go to the witness, your  
7 Honor.

8 Q. Showing you what's been marked Defendant's Exhibit 3127,  
9 do you recognize that?

02:50 10 A. I do, sir.

11 Q. How do you recognize it?

12 A. This is an exhibit that I prepared in preparation of my  
13 testimony.

14 Q. What does this exhibit document?

15 A. It documents the location of the Macy's store at the  
16 Square One Mall as well as the location of the cell towers that  
17 were associated with the activity of the cell phone that ended  
18 in 5112.

19 Q. In regard to the Square One Mall, just some housekeeping,  
02:51 20 how were you able to determine an address for the Square One  
21 Mall that you put on this map?

22 A. There's two pieces of information to pull up location of a  
23 store. One, on the receipt itself or the actual transaction,  
24 it did show that it was -- the store name was Square One. More  
25 importantly, though, on the third column, it actually showed

1 the store location number, which in this case was 226. I was  
2 able to utilize Google and do a search of the actual store  
3 website and was able to find the address of that particular  
4 store and the location based on that.

5 MR. WATKINS: Your Honor, I'd move Defendant's Exhibit  
6 3127 into evidence.

7 MR. CHAKRAVARTY: No objection, your Honor.

8 THE COURT: Okay.

9 (Defendant's Exhibit No. 3127 received into evidence.)

02:52 10 MR. WATKINS: May it be published?

11 Q. So, again, this is a map that you prepared?

12 A. Yes, sir.

13 Q. Can you circle where the Square One Mall is in relation to  
14 this map?

15 A. Okay. Based on my plotting, I marked the location of the  
16 Square One Macy's up in the northern part of the map.

17 Q. Can you circle where the activity on the -- Dzhokhar  
18 Tsarnaev's 5112 phone was?

19 A. Yes, sir. That activity was down south around the  
02:52 20 location of the University of Massachusetts.

21 Q. And how did you know that it was close to the University  
22 of Massachusetts?

23 A. With the Google Earth program, once I plot those latitude  
24 and longitude information, I can zoom correctly right into an  
25 actual street level. So I was able to zoom right down, pull in

1 and actually look right at the university.

2 Q. Between those two spots in Saugus and in Dartmouth, at the  
3 University of Massachusetts, is Boston and Cambridge, correct?

4 A. Yes, sir.

5 Q. Now, during that period of around 8:38 in the evening, is  
6 there any indication that Dzhokhar Tsarnaev's 5112 telephone  
7 was in the Saugus area?

8 A. No, sir.

9 Q. Is there any indication that Dzhokhar Tsarnaev's 5112  
02:53 10 telephone was -- ever left the Dartmouth/New Bedford area?

11 MR. CHAKRAVARTY: Objection to form, your Honor. This  
12 is leading.

13 THE COURT: Overruled.

14 A. Could you repeat it just so I'm --

15 Q. Yes. Is there any indication that Dzhokhar Tsarnaev's  
16 5112 phone left the Dartmouth/New Bedford area on the evening  
17 of January 31, 20 --

18 A. No, sir. All activity was related to cell towers around  
19 the University of Massachusetts.

02:54 20 Q. You anticipated my next question, I think. You plotted  
21 some points. You have not plotted all of the points for that  
22 day?

23 A. Not on this map, sir, no.

24 Q. Indeed, you have all the plots for the entire call detail  
25 record, correct?

1 A. I do, sir, yes.

2 MR. WATKINS: Your Honor, may I have just for the  
3 witness?

4 Q. I'm putting before you another -- a page from a document  
5 that's been identified as Defendant's Exhibit 3130. Have you  
6 seen this before?

7 A. I have, sir, yes.

8 Q. I'm going to scroll through this. What is it called?

9 A. It's called a patron history.

02:55 10 Q. What do you understand this to be?

11 A. This is the log file of when a person uses what's called a  
12 meal card and they go to participating restaurants, stores,  
13 patrons of that, and can swipe that card to purchase items.

14 Q. Did you --

15 MR. WATKINS: Your Honor, I'd move for admission of  
16 this page of 3130.

17 MR. CHAKRAVARTY: No objection, your Honor.

18 THE COURT: It's Page 4?

19 MR. WATKINS: Page 4 of Exhibit 3130.

02:56 20 (Defendant's Exhibit No. 3130 received into evidence.)

21 THE COURT: All right. May it be published to the  
22 jury?

23 Q. What does this indicate about what happened with Dzhokhar  
24 Tsarnaev's meal swipe card?

25 A. The highlighted area shows two actual transactions on

1       January 31, 2013. One is at 6:54 p.m., indicating that the  
2 participant, or Wendy's, was activated.

3       Q.     Just to circle around again, 6:54, purchase for lunch. A  
4       cell phone was around the area of UMass Dartmouth and a  
5       purchase in Saugus was being made at 8:38?

6       A.     Correct, sir.

7       Q.     I want to move next to March 6 of 2013. We've heard about  
8       a trip to New Hampshire to buy BBs. I want to show you first  
9       Government's Exhibit 1161-02 and 1161 -- let's do it this  
02:57 10      way -- 1161-03. Have you seen these documents before?

11      A.     I have, sir.

12      Q.     And what are they?

13      A.     These are receipts from two specific stores, which would  
14       be Wal-Mart stores.

15      Q.     Turning first to 1161-02, what is the date and time of the  
16       purchase there?

17      A.     This is actually the terminal idle. The purchase is a  
18       little further down. But it's at March 6 -- I apologize for  
19       that. Yes. March 6th, at 15:22:11, military time, which would  
02:58 20       indicate 3:22 p.m.

21      Q.     Were you able to determine which Wal-Mart store this  
22       purchase took place at?

23      A.     Yes, I was. On the receipt itself -- and you can see it  
24       here -- the store itself, all of the receipts indicate a  
25       specific Wal-Mart store number, in this case 2399. You can go

1 right to the internet, to the Wal-Mart.com, put in "/" store  
2 and then "2399," and it will actually take you to the address  
3 and everything of that store. So they're broken down on their  
4 website by store number.

5 Q. Going to this other receipt, start from the end. First,  
6 were you able to determine what Wal-Mart store this was?

7 A. Yes. As you can see up top here, this indicates that it's  
8 Store 1796, which would be the Amherst, New Hampshire, store.

9 Q. Can you determine the time of this particular purchase?

02:59 10 A. Yes. Down below here, you can see, again, this was on  
11 March 6, 2013. Military time is 17:34:06, indicating at 5:34  
12 p.m.

13 Q. Next I'm going to show you Government's Exhibit 1152-07.  
14 This is a GPS recovered from a Honda Odyssey plot from March 6,  
15 2013, that same day that BBs were purchased. Have you looked  
16 at this exhibit before?

17 A. I have, sir, yes.

18 Q. Again, you did not prepare this. This is a government  
19 exhibit?

03:00 20 A. That's correct, sir.

21 Q. Having looked at it, are the times that have been plotted  
22 out consistent with the locations and the purchases that you  
23 saw?

24 A. Yes, they are.

25 Q. Using those dates and times from the government exhibit,

1       were you able to go to Exhibit 3002 and determine where  
2       Dzhokhar Tsarnaev's 5112 cell phone was?

3       A.     Yes, I was.

4                    MR. WATKINS: This should only go to the witness, your  
5       Honor.

6       Q.     And did you plot those locations using Google Earth to a  
7       map?

8       A.     I did, sir.

9       Q.     And did you also put on the two Wal-Marts at issue?

03:01 10      A.     I did, sir, yes.

11      Q.     This map that you see before you is Defendant's Exhibit  
12     3128. Is that accurate as to the Dzhokhar Tsarnaev 5112 cell  
13     phone and the two Wal-Marts?

14      A.     It is correct, sir, yes.

15                    MR. WATKINS: Your Honor, I'd move for admission of  
16     Defendant's Exhibit 3128.

17                    MR. CHAKRAVARTY: No objection.

18                    THE COURT: Okay.

19                    (Defendant's Exhibit No. 3128 received into evidence.)

03:01 20                    MR. WATKINS: May we publish that to the jury?

21      Q.     So take us through this exhibit. What does this indicate  
22     about where Dzhokhar Tsarnaev's 5112 cell phone was while  
23     purchases were being made in New Hampshire?

24      A.     Again, I utilized the AT&T call detail records, and I took  
25     the specific items and the latitude and longitude of activity,

1 plotted that on this map, which indicates the location of the  
2 cell towers that would have been the ones that were associated  
3 with the specific items.

4 Q. And down at the bottom is the activity for that phone?

5 A. Yes, it is. I can indicate it by circling it here.

6 Q. And how does that compare to the purchases that were made  
7 at the Manchester and Amherst Wal-Mart stores?

8 A. As you can see up at the top, we have the Manchester here  
9 and then the Amherst here, indicating the distance between the  
03:02 10 two.

11 Q. Given your knowledge of cell phone and cell tower  
12 distances, is it at all possible that a phone could be up in  
13 the New Hampshire area at the time of those purchases given  
14 this data?

15 A. It would not be -- no, it could not reach the towers.

16 Q. During this time on March 6 of 2013, is there any  
17 indication that Dzhokhar Tsarnaev's 5112 phone was in the  
18 Cambridge or Saugus -- Cambridge area?

19 A. No.

03:03 20 Q. Is there any indication from March 6th data that Dzhokhar  
21 Tsarnaev's telephone ever left the Dartmouth/New Bedford area?

22 A. There is no evidence, no, or indication.

23 MR. WATKINS: That's all I have, your Honor.

24 CROSS-EXAMINATION BY MR. CHAKRAVARTY:

25 Q. Good afternoon.

1 A. Good afternoon, sir.

2 Q. We haven't met, have we?

3 A. No, we have not.

4 Q. I just wanted to clarify the circumstances of your being  
5 here. You said that you work both for the Federal Defender's  
6 Office as well as you free-lance in your private company?

7 A. Yes, sir.

8 Q. Are you paid for your service in this case?

9 A. I come here as a representative of the Federal Defender  
03:04 10 Office, so my regular salary would cover that.

11 Q. So let's first start with some of the discussion that you  
12 were giving us with regard to tweets.

13 A. Yes, sir.

14 Q. Twitter. A lot of what you know about Twitter is from  
15 your own experience using the platform, is that right?

16 A. Using it and working with, also, other discovery and  
17 returns from Twitter accounts.

18 Q. Okay. But you don't have any specialized training in how  
19 to deal with Twitter, do you?

03:04 20 A. Not specifically to Twitter or from Twitter, no, sir.

21 Q. So you're just using your experience, your use of Twitter  
22 itself, as well as your review of materials that were provided  
23 by Twitter in this case with regards to the defendant's Twitter  
24 account?

25 A. That is correct, sir.

1 Q. And so Twitter provides the timing of its tweets in a form  
2 that's under the Universal time or UTC, which is about four  
3 hours greater -- further along -- it's Greenwich Mean Time, I  
4 should say?

5 A. Right, yes, sir.

6 Q. Like the time it would be in England compared to the time  
7 it would be here in Boston?

8 A. Yes. And it's offset differently depending on Daylight  
9 Savings or not.

03:05 10 Q. You really made the calculations from those times that the  
11 Twitter told you, and you created the exhibits that Mr. Watkins  
12 asked you to authenticate today?

13 A. Yes. They were verified through UTC time, yes, sir.

14 Q. So one of the tweets actually wasn't still existing on the  
15 Twitter feed. And that's the one you had to rely on the  
16 Twitter information for?

17 A. Yes. The information that was returned, correct.

18 Q. But the rest of the tweets you talked about were all  
19 tweets around the day, Patriots' Day 2012, the day of the  
03:06 20 Boston Marathon?

21 A. Correct, sir.

22 Q. So there was a tweet before, and then there were a few  
23 tweets the day before and then a few tweets the day after?

24 A. Yes, sir.

25 Q. Those tweets are, as they appear, except for that one, in

1 the full Twitter listing that Mr. Watkins showed you, I think,  
2 3001, I believe?

3 A. Correct, sir.

4 Q. So you don't know what the defendant was doing when he  
5 wasn't tweeting that day, right?

6 A. You mean, like, in between the times?

7 Q. Right.

8 A. No, I have no idea, sir.

9 Q. So you don't know that he actually did go to the Marathon  
03:06 10 later that day?

11 A. I have no knowledge of that.

12 Q. If he went in the afternoon and he hung out with his  
13 friend Steve Silva, you wouldn't know that unless there was a  
14 tweet at that time, right?

15 MR. WATKINS: Object.

16 THE COURT: Overruled.

17 A. I would have no knowledge of that, no, sir.

18 Q. Did he tweet during the Boston Marathon?

19 A. There was a -- the one tweet was around 1:00. Yeah, there  
03:07 20 was. Let me see. I would have to look at the actual exhibit  
21 again, if I could.

22 Q. Do you have those in front of you?

23 A. I do if that's okay if I go through them.

24 MR. CHAKRAVARTY: Mr. Watkins, I might need your help  
25 in presenting your exhibits. 3126H, I think.

1 A. Okay.

2 Q. Is this the tweet, the one that just put up as 3126H, this  
3 is the tweet that you're referring to?

4 A. I'm not seeing anything right now.

5                   Correct. That is one, as you can see, based on the  
6 UTC time in the log. It was translated into 12:46 p.m. Eastern  
7 Daylight Time.

8 Q. What you know about that tweet is that the user J\_tsar  
9 tweeted this tweet using a web browser?

03:08 10 A. Yes.

11 Q. So a web browser is opposed to a mobile phone app,  
12 correct?

13 A. It's a standard -- yes, like Internet Explorer or Safari  
14 or something like that.

15 Q. That's what Twitter tells you, that he used a web browser  
16 versus an --

17 A. An iPhone.

18 Q. Correct?

19 A. Correct.

03:08 20 Q. Does it tell where that web browser was used?

21 A. No, it does not.

22 Q. So it doesn't tell you whether it was the browser on a  
23 phone, right?

24 A. It could be if the phone was plugged in or logged in as  
25 the browser, yes, sir.

1 Q. Well, if you have a smart phone, say you have an iPhone,  
2 you have an Safari browser on the iPhone, don't you?

3 A. Correct.

4 Q. You have an Android version. You might have Firefox. You  
5 might have the Android version of an internet browser. You  
6 might have Internet Explorer, right?

7 A. Correct.

8 Q. And so, in fact, if you log into Twitter on a browser  
9 using your mobile phone, it comes up as a browser tweet,  
03:09 10 doesn't it?

11 A. Correct.

12 Q. So this doesn't tell you much more than he tweeted at  
13 about 1:00 in the afternoon on April 16, 2012, right?

14 A. Correct.

15 MR. CHAKRAVARTY: Now, can we go to 3126B, please?

16 Q. Now, this was the tweet which you corrected the time for.  
17 This was also tweeted out on that Marathon Monday, correct?

18 A. Yes, sir.

19 Q. Early in the morning, right?

03:10 20 A. Correct.

21 Q. And it was a quote, in quotation marks, correct?

22 A. Correct.

23 Q. And I think you referred to the UMass Dartmouth swipe card  
24 records to show that Dzhokhar Tsarnaev swiped into a dorm room  
25 at Maple Ridge Hall a couple hours after this, I think three

1 hours after this; is that fair to say?

2 A. It's fair to say, yes, sir. I don't know exact time but,  
3 yes.

4 Q. A little later that morning?

5 A. Correct.

6 Q. So you don't know at what time after this tweet Jahar  
7 Tsarnaev went up to Boston, the 45-or-minute-so ride, right?

8 MR. WATKINS: Object to the form of the question, your  
9 Honor.

03:11 10 THE COURT: Overruled.

11 A. Can you repeat it, sir?

12 Q. Is it about 45 minutes to get from UMass Dartmouth to  
13 Boston?

14 A. I'm not familiar, but it appears about that time, yes,  
15 sir.

16 Q. And so you don't know at what time he left UMass Dartmouth  
17 to go to Boston, do you?

18 MR. WATKINS: Objection.

19 THE COURT: Sustained.

03:11 20 Q. You don't know where he picked Steve Silva up, either at  
21 UMass Dartmouth or in Cambridge?

22 MR. WATKINS: Objection.

23 THE COURT: Sustained.

24 Q. In fact, when was the next time that Jahar Tsarnaev swiped  
25 back into UMass Dartmouth?

1 A. I would need to look at the records, if I could, sir.

2 Q. Please do if we have the exhibit.

3 A. So the next swipe after the 4/16 would have been on 4/17  
4 at 1:38 a.m.

5 Q. 1:38 a.m.?

6 A. Yes, sir.

7 Q. So it's possible that Jahar Tsarnaev left UMass Dartmouth,  
8 went to the Marathon with his friend Steve Silva, and came back  
9 in the early morning hours of the next day?

03:12 10 MR. WATKINS: Objection.

11 THE COURT: Rephrase it.

12 Q. Based on the records that you just described, is it  
13 possible that Jahar Tsarnaev went to the Boston Marathon during  
14 Patriots' Day and returned early in the morning the next day?

15 A. When you say "based on the records," you're talking about  
16 the swipe cards?

17 Q. The swipe card.

18 A. I do not know where he would be anywhere between those  
19 times based on this.

03:13 20 Q. Let's say beyond the swipe card records, is there any  
21 other data that you're aware of that would contradict that?

22 MR. WATKINS: Objection, your Honor.

23 THE COURT: No. You may answer that.

24 A. There's phone activity where the 5112 is in that area down  
25 by UMass.

1 Q. At some point later in that day?

2 A. Yes.

3 Q. And then --

4 MR. WATKINS: Can we clarify which day, please?

5 Q. On Patriots' Day on April 26th?

6 A. On 4/16.

7 Q. 4/16.

8 MR. WATKINS: What year?

9 Q. 2012.

03:13 10 A. 2012, yes, sir.

11 Q. And you don't know whether he went to the Marathon that  
12 day or not, do you?

13 A. I'm not aware of any of that information, no, sir.

14 Q. Now, let's talk about the exhibit --

15 MR. BRUEMMER: Mr. Bruemmer, if you can call up 1167?

16 Q. Let's talk about some of those phone records you were just  
17 referring to.

18 MR. CHAKRAVARTY: Your Honor, if we could have the  
19 government's terminal?

03:14 20 Q. Mr. Watkins showed you this exhibit, which is the  
21 subscriber information for that phone number, AT&T number  
22 ending with 5112, is that right?

23 A. That is correct, sir.

24 Q. And this shows that it's subscribed to Dzhokhar Tsarnaev,  
25 but it lists an address of 69 Carriage Drive, New Bedford,

1 correct?

2 A. It does, yes, sir.

3 Q. You know that was the address of the defendant's friends,  
4 Dias Kadyrbayev and Azamat Tazhayakov, right?

5 A. Actually, I wasn't aware. I just knew it as an address.  
6 I didn't know who it was.

7 Q. Did you review the phone records?

8 A. I reviewed the phone record. I knew that it was the  
9 Carriage Street, but I didn't know the details of that address.

03:14 10 Q. You must have known that this was a family plan that  
11 involved both Dzhokhar Tsarnaev as well as his friends, Dias  
12 Kadyrbayev and Azamat Tazhayakov?

13 A. I was aware there were other phones that were associated  
14 with this account, yes, sir.

15 Q. In fact, the account had a balance that hadn't been paid,  
16 and the cell phone service had been deactivated at the time of  
17 the Boston Marathon, is that correct?

18 MR. WATKINS: Objection, your Honor. It's far beyond  
19 the scope. I mean, he's not going to know.

03:15 20 A. I -- I don't know. I mean, I can't say whether it was  
21 terminated or not. I wasn't -- where I see it says  
22 "suspended," I don't know when. I would assume at some point  
23 after 4/19.

24 Q. Well, you suggested you had some familiarity with these  
25 records.

1 A. Yes, sir.

2 Q. Did you know -- did you review the records of the other  
3 phone numbers associated with this account?

4 MR. WATKINS: I'm going to object, your Honor. Beyond  
5 the scope.

6 THE COURT: Overruled.

7 A. I did look at the other numbers, yes, sir.

8 Q. Now, with respect to this phone, do you know what kind of  
9 a phone it was?

03:16 10 A. The physical phone?

11 Q. Physical phone.

12 A. I'm not quite sure, but I think it may have been an  
13 iPhone. If not, I think it may have been an Android. I don't  
14 know the actual physical phone because I did not see them. I  
15 didn't have access.

16 Q. None of the records that you reviewed from the telephone  
17 company told you whether it was an iPhone?

18 A. I didn't see anything that indicated that, no.

19 Q. You described earlier that you've been trained in cell  
03:16 20 site -- historical cell site location analysis, is that right?

21 A. Correct, sir.

22 Q. You received that training sometime back in 2008, 2009, is  
23 that right?

24 A. The training has been ongoing. And then if other options  
25 are available for training, I take those as well as develop my

1 own training and teaching, yes, sir.

2 Q. You described that you went -- you were on the so-called  
3 lecture circuit before. Does that mean you were speaking?

4 MR. WATKINS: Objection, your Honor, please, the  
5 characterization.

6 THE COURT: Go ahead.

7 Q. Does that mean you were presenting; you were teaching  
8 others or you were receiving trainings?

9 A. Both. There were times that I went and heard lectures  
03:17 10 from others and got certificates as well as talked with the  
11 cell phone companies and also developed and taught it.

12 Q. So you've gone to AT&T? You've received training from  
13 AT&T as to how to handle their cell phone records?

14 A. Not from AT&T. I worked closely with a representative, an  
15 engineer, from T-Mobile on a couple of cases. And we went  
16 through all the plotting processes to make sure that we were  
17 actually the same.

18 Q. You know that AT&T and T-Mobile actually do things  
19 differently, right?

03:17 20 A. As far as what? I'm not quite sure what you mean.

21 Q. In terms of the cell site location data that they present.

22 A. The data looks differently, yes. It's going to be  
23 presented differently.

24 Q. In fact, even the technology that they use, especially on  
25 a 4G system, with regard to figuring out which cell site and

1 what the azimuth is for each cell site; you know that's  
2 different, too, right?

3 A. Correct. Each one is going to have a different one  
4 depending on where the location of the antenna is.

5 Q. So you actually haven't had training with AT&T on how to  
6 read their records specifically for purposes of historical cell  
7 site analysis?

8 A. I'm aware of it, and it includes the actual latitude and  
9 longitude of the physical antenna. So there is nothing beyond  
03:18 10 -- if we're plotting just that location, that is the only  
11 information that would be needed.

12 Q. So you haven't had any training specifically with regards  
13 to AT&T -- that AT&T has provided with regard to how to do cell  
14 site analysis on their records?

15 A. Not specifically from AT&T, no, sir.

16 Q. So if you had, you would have known that AT&T does not  
17 provide reliable data usage records that's useful for cell site  
18 analysis; did you know that?

19 A. I'm aware that the data -- because it's in hour blocks.  
03:18 20 I'm aware of that, yes, sir.

21 Q. You're aware that it's not a reliable indicator of where a  
22 phone is at a time that the record shows that data usage was  
23 used?

24 A. I'm not aware of that, no.

25 MR. CHAKRAVARTY: So if we can call up 3127, please,

1 your Honor, Mr. Watkins' computer?

2 Q. So this was 3127A, a plot that you prepared that shows the  
3 defendant's phone down in Dartmouth on the evening of January  
4 31 of 2013, is that right?

5 A. Correct.

6 Q. And you used, to show that the phone was down in Dartmouth  
7 at the time of a purchase of a pressure cooker in Macy's in  
8 Saugus, you showed two entries. One is a 6:50 p.m. -- sorry --  
9 6:50 p.m. outbound text?

03:20 10 A. Uh-huh.

11 Q. And the other is a 9:03 p.m. data usage, correct?

12 A. Correct.

13 Q. And so if the data usage is not reliable from AT&T, then  
14 we really should be focusing on the text; would that be fair to  
15 say?

16 A. It would be fair, yes, sir.

17 Q. So the distance between Saugus and Dartmouth at about 7 or  
18 8 p.m. on January 31st is less than an hour, isn't it?

19 A. I do not know that, but I would have to refer to you on  
03:20 20 that.

21 Q. Now, in addition to the fact that there was an outbound  
22 text from that phone number, from the 5112 number, did you  
23 happen to look at some of the -- you said, I think, you looked  
24 at all of the other call data, and you plotted it out for the  
25 5112 phone, isn't that right?

1 A. Previously, yes, sir.

2 Q. And so you know that, in fact, this outbound text that he  
3 sent was a text to Tamerlan Tsarnaev, didn't you?

4 A. I'm aware of that, yes, sir.

5 Q. In fact, he had had a previous text with Tamerlan Tsarnaev  
6 and a text after this one with Tamerlan Tsarnaev that evening?

7 A. I'm aware of the one previously. I'm not aware of the one  
8 after, no, sir.

9 Q. Are you aware that they spoke for over, I think, four  
03:21 10 minutes earlier that day --

11 A. I did not look at that detail, no, sir.

12 Q. -- on the phone?

13 That wouldn't surprise you if there was a call between  
14 the two on January 31st for about four minutes and 19 seconds?

15 A. I can't say that it wouldn't surprise me, but I'm not  
16 aware of it.

17 Q. Now, when you identify an entry from -- that you create a  
18 plot for, that tells you that there was some phone activity  
19 with a tower located where it's shown on the plot at a certain  
03:22 20 time, correct?

21 A. Correct, sir.

22 Q. It doesn't tell you who was using the phone, right?

23 A. No, sir.

24 Q. It doesn't tell you how far away that person was from the  
25 tower, right?

1 A. Correct.

2 Q. And it doesn't tell you what the location data is about  
3 the other person with whom they're communicating, correct?

4 A. No, sir, it does not.

5 Q. Now, did you do a similar analysis for Tamerlan Tsarnaev's  
6 phone?

7 A. As far as -- what do you mean a similar --

8 Q. Plotting where his phone was at different times.

9 MR. WATKINS: Objection, your Honor.

03:22 10 THE COURT: Sustained.

11 MR. CHAKRAVARTY: One moment, your Honor.

12 Q. You were asked several questions about the Boston Marathon  
13 in relation to the Twitter information. In fact, the last wave  
14 of the Boston Marathon starts at about 10:40 a.m., is that  
15 right?

16 A. Yes. I am to believe that, yes, sir.

17 MR. WATKINS: Your Honor, I'm going to object. The  
18 government objected on this before.

19 MR. CHAKRAVARTY: I think the door was opened, your  
03:23 20 Honor.

21 THE COURT: Yeah. You can have it. Go ahead.

22 Q. After the elite runners come in in about two hours, a  
23 little over that, the Marathon continues for several hours  
24 after that; isn't that fair to say?

25 A. Yes, because the first runners are going to come in, and

1 others are going to come in afterwards, yes, sir.

2 Q. In fact, you know that around 2:49 in the afternoon the  
3 Marathon is still going, correct?

4 A. I believe so, correct.

5 Q. So if somebody attended the Marathon in the afternoon,  
6 they still would have been able to observe the runners as well  
7 as participate in the activities?

8 A. I would believe so, yes.

9 MR. CHAKRAVARTY: If we could go to 3128, please, Mr.  
03:24 10 Watkins?

11 Q. This was the other plot that you did for March 6, 2013,  
12 correct?

13 A. Yes, sir.

14 Q. Again, you used the GPS data that was in a government  
15 exhibit, and then you plotted onto that where the defendant's  
16 cell phone was the evening of March 6th, correct?

17 A. Correct.

18 Q. Now, with regards to these purchases up at the Wal-Marts,  
19 they were of BBs, is that right?

03:25 20 A. I believe so, yes.

21 Q. You saw the receipts just a little while ago, and they  
22 matched up in time?

23 A. Yes, sir.

24 Q. You don't know whether -- or, rather, you do know that  
25 there was no video or anything else identifying Tamerlan

1 Tsarnaev as the purchaser of those BBs, right?

2 A. I'm not aware of, no.

3 Q. You don't know where Tamerlan's phone was at that time, do  
4 you?

5 MR. WATKINS: Objection.

6 THE COURT: Sustained.

7 Q. And you don't know who then actually purchased those BBs,  
8 do you?

9 MR. WATKINS: Objection.

03:25 10 THE COURT: Sustained.

11 Q. You don't know what vehicle was up there at that time, do  
12 you?

13 MR. WATKINS: Objection.

14 THE COURT: Sustained.

15 Q. Is there anything in the data that you reviewed in your  
16 preparation for this case that shows that it was Tamerlan that  
17 made those purchases?

18 A. No, I did not see anything that would corroborate that in  
19 any way.

03:26 20 Q. With regard to the Macy's purchase, there was also no  
21 videotape for the Macy's pressure cooker purchase, correct?

22 A. I'm aware of that, yes, sir.

23 Q. You didn't review any videotape that --

24 A. No, sir, no.

25 Q. Now, the defendant and his brother communicated on other

1 days that components of the bombs and other things were  
2 purchased, correct?

3 A. I believe so. I didn't go through all of the detail of  
4 who contacted who. I was looking more of location information.

5 Q. In fact, even on April 14th, the day before the Marathon  
6 bombing --

7 MR. WATKINS: I'm going to object, your Honor.

8 THE COURT: Sustained. Beyond the scope.

9 MR. CHAKRAVARTY: Just one moment, your Honor.

03:27 10 That's all I have, your Honor.

11 MR. WATKINS: Just a couple.

12 REDIRECT EXAMINATION BY MR. WATKINS:

13 Q. Showing you Exhibit 3002 -- you have many years of  
14 experience as a computer forensic investigator, correct?

15 A. Yes, sir.

16 Q. You don't need to have several years of a computer  
17 forensic investigator to be able to plug in longitude and  
18 latitude into a Google Earth program, correct?

19 A. No, sir. They're numbers, yes, sir.

03:28 20 Q. They are just two numbers, and really anybody can do that,  
21 is that correct?

22 A. That's correct, yes.

23 Q. You were able to use some more sophisticated tools in  
24 order to map it, but anybody could punch these into Google Maps  
25 and come up with a location, right?

1                   MR. CHAKRAVARTY: Objection, your Honor.

2                   THE COURT: Overruled. Go ahead.

3                   Q.     No training from AT&T, T-Mobile or anybody else is really  
4     necessary to get those coordinates?

5                   A.     Correct.

6                   Q.     3127, 9:03 p.m. data usage for 5112, would it be possible  
7     for the Dzhokhar Tsarnaev 5112 phone to be anywhere else but  
8     the UMass New Bedford area and hit off a cell phone tower at  
9     9:03 p.m.?

03:29 10           A.     Based on the records that came from AT&T, it would put  
11    that tower there, yes, sir.

12                   Q.     Mr. Chakravarty asked you about the distance in time  
13    between New Bedford -- or, I'm sorry, Dartmouth and Saugus; do  
14    you remember that?

15                   A.     Yes, sir.

16                   Q.     He suggested it was less than an hour, and you don't know?

17                   A.     I'm not familiar with the area of the drive.

18                   Q.     You're from Rochester. Why should you be?

19                   A.     Correct.

03:30 20           Q.     But neither you nor Mr. Chakravarty knows exactly how long  
21    it takes to get to the Square One Mall?

22                   A.     I wouldn't know that and any traffic could even make a  
23    difference.

24                   Q.     One could do that by going to Google Maps, as we all do,  
25    and --

1                   MR. CHAKRAVARTY: Objection, your Honor. Leading.

2                   THE COURT: Sustained.

3                   Q. For any place, one could determine the time it takes to go  
4 from one spot to another using Google Maps, correct?

5                   MR. CHAKRAVARTY: Objection.

6                   THE COURT: Go ahead. You may answer that.

7                   A. Yes. You can take two points and Google Maps, Google  
8 Earth, a beginning and ending, and it will map out an estimated  
9 time.

03:31 10           Q. So if the government wanted to prepare an exhibit --

11                   MR. CHAKRAVARTY: Objection, your Honor.

12                   Q. -- to talk about how long it took, they could do that very  
13 easily?

14                   THE COURT: The objection is sustained.

15                   MR. WATKINS: I have no nothing further, your Honor.

16                   THE COURT: Anything else?

17                   All right, sir. Thank you. You may step down.

18                   THE WITNESS: Thank you.

19                   . . . END OF EXCERPT.)

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